



## VA engineers return to the basics of flight

*by Melissa Withrow, Air Vehicles Directorate*

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Members of the Air Force Research Laboratory's Air Vehicles Directorate develop technologies from their inception through their transition to current and future military aerospace vehicles. Often, they do not see the fruits of their labor first hand in an operational setting.

However, a group of 26 directorate lieutenants recently had the opportunity to do just that while gaining some hands on experience. They flew a refueling mission with a KC-135R Stratotanker from the 434<sup>th</sup> Air Refueling Wing (434 ARW) based at Grissom Air Force Reserve Base, Indiana. The 434 ARW is at Wright-Patterson Air Force Base for the summer while their runway is under construction.

The group was divided into two sections that each had the opportunity to fly on one of two flights, which lasted approximately three and a half hours. The first group refueled a RC-135 electronic reconnaissance aircraft from Offutt Air Force Base, Nebraska, and the second group refueled an E-3 Airborne Warning and Control System (AWACS) from Tinker Air Force Base, Oklahoma.

During the actual refueling, each rider was cycled in to watch from one of the two side "bunks" next to the boom operator, who controls the apparatus that delivers fuel to the receiving aircraft. The experience gave the group an understanding of what goes into planning, executing, and completing an air refueling mission.

The outing was arranged by Maj. Larry Leny, Deputy Chief of the directorate's Aeronautical Sciences Division and former KC-135 navigator, and 1<sup>st</sup> Lt. Erik Saladin, a directorate wind tunnel test engineer.

"If you spend too much time in the office, then you lose that sense of reality. You tend to forget a lot of things that you need to be looking at," Lieutenant Saladin said.

The KC-135 is relevant to the directorate's focus on aircraft sustainment, which pursues technology that will reduce operations and maintenance costs and enhance aircraft readiness. Sustainment is increasingly important for aging aircraft such as the KC-135, which was first manufactured in 1956 and is expected to remain in service for many more years. @